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Conference Abstract

Towards Insect Digital Collections and Data Publishing: A journey for the GBIF-funded African Insect Atlas Collaborative Project

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Abstract

Museums from six African countries (Botswana, Kenya, Zimbabwe, South Africa, Madagascar, Mozambique), with support from the California Academy of Sciences, are currently collaborating on the GBIF funded project: **African Insect Atlas: unleashing the potential of insects in conservation and sustainability research in Africa (BID-AF2015-0134-REG).** This project was initiated to move biodiversity knowledge out of insect collections into the hands of a new generation of global biodiversity researchers interested in direct outcomes. The project acknowledges that insects are the glue that hold ecosystems together, and are ideal organisms for climate change biology, conservation planning, mapping local and regional patterns of diversity, and monitoring threats to ecosystem services and natural capital, thereby addressing the Sustainable Development Goal #15, 'Life on Land (http://www.undp.org/content/undp/en/home/sustainable-development-goals.html). The consortium partners have, since June 2016, embarked on a journey to learn digitization techniques and have successfully digitized 50% of the project goals. The targeted insect orders include Coleoptera, Odonata, Ephemeroptera,

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Plecoptera, Trichoptera and Hymenoptera. The data being mobilized includes specimen and species data, habitat information as well as identification of possible threats such as deforestation. These are being captured into a standardized platform using Darwin Core. Elaborate data cleaning is being carried out using tools in OPEN Refine (http://openrefine.org) and Microsoft Excel 2010. The captured data is also being geo-referenced using appropriate software such as GEOLocate (http://www.museum.tulane.edu/geolocate) and GEO-Calculator (http://manisnet.org/gci2.html). The specimen occurrence records will be made available on the GBIF platform and will continuously be updated as more information becomes available. Any specimen images taken will also be linked to the database (SPECIFY and Microsoft Excel). Assessments will be carried out to establish which species are native and endemic as well as to establish their conservation status. Simplified image catalogues, checklists, distribution and habitat maps in suitable formats will also be produced to help scientists and other users to identify these species during their research and in the field.

Keywords

Data, Digitization, Insects, Collections

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